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article.) Furthermore, bioelectric sources of magnetic fields are often distributed over a region of this scale. In order to measure these fields, for some applications it may be important to have a field sensitivity on the order of a few  $100 \text{ fT Hz}^{-1/2}$  at frequencies from about 1 Hz to 1kHz (see the second Wikswo, et al article). This may be achieved by low temperature superconducting quantum interference device (SQUID) magnetometers with the required spatial resolution. In order to obtain high spatial resolutions a 4.2 K sensor must be placed in close proximity to the room temperature sample, typically at distances comparable to the spatial resolution. As hereinafter described in greater detail, a scanning SQUID microscope (SSM) is optimized for imaging biomagnetic fields and present initial measurements of magnetic fields associated with current injection and the propagation of action currents in cardiac tissue.

#### Description of Drawings

[0053] The following is a brief description of the accompanying drawings:

[0054] FIG. 1 is a diagrammatic sectional elevational view of a SQUID microscope constructed in accordance with an example of the present invention;

[0055] FIG. 2 is a diagrammatic cross-sectional view of a tip of the microscope of FIG. 1;

[0056] FIG. 3 is a scanning electron microscope image of a pick-up coil for the microscope of FIG. 1;

[0057] FIGS. 3 and 4 are graphs useful in the understanding of the microscope of FIG. 1;

[0058] FIG. 5(a) is a diagrammatic front view of the microscope of FIG. 1;

[0059] FIG. 6 is a graph useful in understanding the operation of the microscope of FIG. 1;

[0060] FIG. 7(a) is an image produced by the microscope of FIG. 1;

[0061] FIGS. 7(b) and 8 are graphs useful in understanding the operation of the microscope of FIG. 1;

[0062] FIG. 9 is a side diagrammatic view of the lever mechanism that allows close spaced adjustment of the sensing element;

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